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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/859,507	05/18/2001	Riccardo Cesarini	07040.0087	5029

22852 7590 04/10/2003

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/859,507

Applicant(s)

CESARINI ET AL.

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-45 is/are pending in the application.
- 4a) Of the above claim(s) 42 and 45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-33, 36, 37, 40, 41, 43 and 44 is/are rejected.
- 7) ☒ Claim(s) 34, 35, 38 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 43 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 43: It is unclear if an acoustic signaling device, a tire and/or a wheel is being claimed. The preamble of claim 43 describes an acoustic signaling device whereas the body of claim 43 merely describes a tire having a tread pattern comprising grooves. What is the acoustic signaling device in the body of claim 43? Is it an electronic device or a tire? In claim 43, it is suggested to (1) change line 1 to --A tyre for a vehicle wheel, comprising--, (2) on line 2 change "a tyre of the vehicle wheel" to --the tyre--; and (3) appropriately amend the body of the claim to indicate which claimed feature(s) have the "acoustic signaling" function.

In claim 43, the description relating to the grooves comprising a first dimension of the footprint of the tire and a second dimension of the footprint is confusing and ambiguous. Are the specified dimensions of the footprint and / or grooves?

In claim 44, the scope of protection afforded by the description of "suitable for producing a directional tread" is unclear. Does claim 44 require a directional tread? In claim 44, it is suggested to delete --are suitable for producing a directional tread pattern--.

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) **Claim 44 is rejected under 35 U.S.C. 102(b) as being anticipated by Great Britain '069 (GB 2114069).**

The claimed tread band is anticipated by the tread of the tire of Great Britain '069. See figure 2.

6) **Claim 44 is rejected under 35 U.S.C. 102(b) as being anticipated by Great Britain '268 (GB 29268).**

The claimed tread band is anticipated by the tread of the tire of Great Britain '268. See figure 4.

7) **Claim 44 is rejected under 35 U.S.C. 102(b) as being anticipated by Sommer (US 2104532).**

The claimed tread band is anticipated by the tread of Sommer. See figure 2 or 3.

8) **Claim 44 is rejected under 35 U.S.C. 102(b) as being anticipated by Japan '206 (JP 2-133206).**

The claimed tread band is anticipated by the tread of Japan '206 having the tread pattern shown in figure 7.

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9) **Claims 31-33, 36-37, 40-41 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '206 (JP 2-133206) in view of Japan '109 (JP 5-58109) and optionally Seitz et al (US 4424846) and / or Great Britain '069 (GB 2114069).**

Japan '206 discloses a tire having a directional tread pattern comprising shoulder lateral grooves 11 and isolated long steeply inclined grooves 10 wherein there is no intercommunicating path between the shoulder lateral grooves and long inclined grooves. See figure 7. The claimed **two rows of lateral grooves** reads on the two rows of shoulder lateral grooves 11. The claimed **at least one third row of grooves** reads on the long steeply inclined grooves 10. Japan '206 is silent as to whether or not the end portions of the long steeply inclined grooves are *outside the footprint of the tire*.

As to claims 31-33, 36-37, 40-41 and 43-44, it would have been obvious to provide the long steeply inclined grooves of Japan '206's tire with a sufficiently long length such that end portions of the long steeply inclined grooves extend *outside the footprint of the tire* to allow water drainage from underneath the tire footprint since Japan '109, also directed to a directional tread pattern having isolated steeply inclined grooves, suggests providing the long steeply inclined grooves with a length of 100-300% of the length of the footprint to improve running performance on wet road (the steeply inclined grooves extending outside the footprint to allow water drainage from the footprint).

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As to claims 31 and 32, the claimed greater dimension / maximum distance is suggested by Japan '109's teaching to provide the grooves 2 with a length of 100% to 300% of the footprint length.

As to claims 41 and 43, these claims fail to require tire structure not suggested by the above combination of Japan '206 and Japan '109 since as the tire pressure in Japan '206's tire decreases, the footprint length must increase as is well known by one of ordinary skill in the art. With sufficiently low air pressure, the isolated grooves 11 of Japan '206 become completely trapped in the footprint and produce noise upon rotation of the tire. As evidence of the understanding by one of ordinary skill in the art that isolated grooves (isolated depressions) which are trapped in the footprint produce noise upon rotation of the tire, see Seitz et al. Hence, the function of acoustical signaling described in claims 41 and 43 naturally flows from the use of isolated steeply inclined grooves 11 of Japan '206 having a length greater than footprint length to allow water drainage as per the teachings of Japan '109.

As to the dependent claims: As to claim 32, Japan '206 suggests providing the grooves 10 such that at least a portion thereof is substantially straight. See figures. As to claims 36 and 37, the limitations therein would have been obvious since Japan '206 shows shaping and arranging the grooves which may have at least one straight portion so as to define a directional tread pattern. As to claim 40, it would have been obvious to add the claimed fifth grooves since Great Britain '069, also directed to a directional tread pattern having isolated grooves, suggests using more than four rows of the isolated grooves in order to permit water to escape from the footprint while overcoming the

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problem of uneven wear due to movement of blocks formed by grooves which are not so isolated.

Allowable Subject Matter

10) Claims 34-35 and 38-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 34, there is no motivation to provide the end portions of the isolated grooves 10 in the tread pattern of Japan '206 with the claimed oppositely curved arcs.

As to claim 35, there is no motivation to change the symmetric tread pattern of Japan '206's motorcycle tire to an asymmetric tread pattern using the claimed different form of grooves for the first and second rows.

As to claims 38 and 39, there is no motivation to add the claimed fourth grooves to the tread of Japan '206 - the claimed fourth grooves starting from a shoulder end and ending between two adjacent grooves of the at least one third row.

Remarks

11) Applicant's election with traverse of Group I tire in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application can be made without serious burden. This is not found persuasive because (1) the elected tire invention does not require searching for a method of modifying at least one first dimension and a number of grooves until an acoustic signal indicating a lower air pressure inside the tire is produced as required by nonelected method claim 42 and (2) the search for the non-elected method (method for checking air pressure /

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method for indicating reduction in an inflation pressure) requires a search for a tread pattern(s) not required by the elected tire invention (see for example claim 45 which merely describes "tread pattern").

The requirement is still deemed proper and is therefore made FINAL.

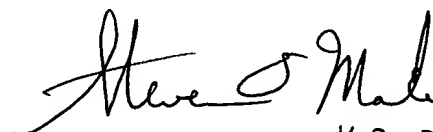
The remaining references are of interest.

12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
April 7, 2003


STEVEN D. MAKI
PRIMARY EXAMINER
GROUP 1300
4-7-03
AU 1733